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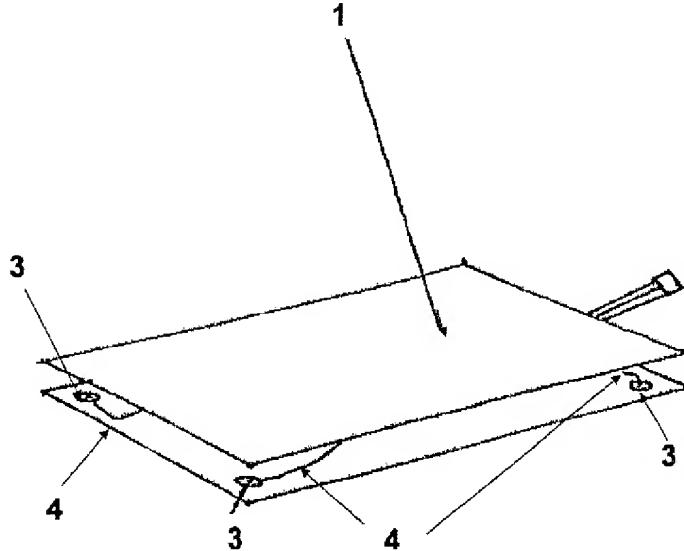
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(54) Title: METHOD FOR DETECTING HEART BEAT AND DETERMINING HEART AND RESPIRATION RATE

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(57) Abstract: Disclosed is an apparatus and system for non-invasively detecting and determining the heart rate and respiration rate of a patient, while the patient is within their sleep environment, suitable for both home and hospital monitoring, which includes an array of at least two pressure-sensitive sensors, positioned under the mattress, which gathers data from the patient corresponding to the vertical and horizontal movements of the body, and wherein the data from each sensor is collected, filtered, and analyzed and finally, the difference between the results gathered from each sensor detects and determines heart and respiration rates.

INTERNATIONAL SEARCH REPORT

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PCT/IL05/00158

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 5/02, 5/103, 5/117

US CL : 600/500, 483, 595, 481

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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U.S. : 600/500-503, 483, 595, 481, 484, 529, 534, 535, 552, 587

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,506,153 B1 (LITTEK et al) 14 January 2003 (14.01.2003), Abstract and Figures 3 and 5.	1 and 11
A	US 6,030,347 A (NAKAMURA et al) 29 February 2000 (29.02.2000), Abstract and Figure 2.	1 and 11
A	US 4,438,771 A (FRIESEN et al) 27 March 1984 (27.03.1984), Abstract and Figures 1 and 2.	1 and 11
A	US 4,066,072 A (CUMMINS) 03 January 1978 (03.01.1978), Abstract and Figures 1, 10, 10A , and 10B.	1 and 11

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